

IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claim 1 (Currently Amended): A measuring system comprising:

a mass spectrometer comprising a chamber which includes an opening for introducing a sample gas into the chamber, and a needle electrode for ionizing said sample gas by corona discharge at a tip end of the needle electrode caused by application of a voltage to the needle electrode; and

~~an ion source for performing ionization of a sample by causing a corona discharge at a tip end of a needle electrode by applying a high voltage, and means~~
for restricting a signal strength with respect to a mass number of NO_3^- generated by a negative corona discharge in a region of said corona discharge by restricting NO_3^- generating reaction by reaction of O_2^- and $[\text{N}_2]]\text{NO}$ for measuring a fine component in a said sample gas selected among a group of chlorophenols (CP), dioxins, chlorobenzenes, ~~chlorophenols, hydrocarbin~~hydrocarbons, nitro compounds as a precursor of said dioxins.

Claim 2 (Original): A measuring system comprising:

a mass spectrometer comprising a chamber which includes an opening for introducing a sample gas into the chamber, and a needle electrode for ionizing said sample gas by corona discharge at a tip end of the needle electrode caused by application of a voltage to the needle electrode; and

~~an ion source for performing ionization of a sample by causing a corona discharge at a tip end of a needle electrode by applying a high voltage, and means~~
for measuring a signal strength of dichlorophenol with respect to a mass number of NO_3^- generated as intermediate by O_2^- by restricting the signal strength to be smaller than that of dichlorophenol.

Claims 3-4 (Canceled):

Claim 5 (Original): An explosive detector comprising:

a probe for sampling a sample gas;

a first chamber for introducing said sample gas from said probe;

a needle electrode arranged within said first chamber;

a first opening portion for introducing ions generated in said first chamber into a mass spectrometric portion;

a second opening portion for supplying said sample gas, said second opening portion being located so that an angle formed by a direction connecting said first opening portion and a tip end of said needle electrode, and a direction connecting a center of said second opening portion and said tip end of said needle electrode is less than or equal to 90° ; and

a display for displaying a result of judgment made by a mass spectrometric portion.

Claim 6 (Original): An explosive detector comprising:

an inspection object scanning portion for inspecting an object;

a suction device for sucking a sample gas from said inspection object
scanning portion;
a first chamber for introducing said sample gas from said suction device;
a needle electrode arranged within said first chamber;
a first opening portion for introducing ions generated in said first chamber into
a mass spectrometric portion;
a second opening portion for supplying said sample gas, said second opening
portion being located so that an angle formed by a direction connecting said first
opening portion and a tip end of said needle electrode, and a direction connecting a
center of said second opening and said tip end of said needle electrode is less than
or equal to 90°; and
a mass spectrometric portion for making judgment.

Claim 7 (Currently Amended): An explosive detector as claimed in
claim 6, wherein said inspection object scanning portion samples ~~as sample gas with~~
~~moving said inspection object using said sample gas, while said inspection object is~~
moving on a movable base.